SLOVENSKI STANDARD
SIST EN 14323:2017

01-junij-2017

Nadomešča:
SIST EN 14323:2004

Lesne plošče - Z melaminom oplemenitene plošče za notranje prostore - Preskusne metode

Wood-based panels - Melamine faced boards for interior uses - Test methods

Holzwerkstoffe - Melaminbeschichtete Platten zur Verwendung im Innenbereich - Prüfverfahren

Panneaux à base de bois - Panneaux surfacés mélaminés pour usages interieurs - Méthodes d'essais

Ta slovenski standard je istoveten z: **EN 14323:2017**

ICS:

79.060.01	Lesne plošče na splošno	Wood-based panels in general

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EUROPEAN STANDARD

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English Version

Wood-based panels - Melamine faced boards for interior uses - Test methods

Panneaux à base de bois - Panneaux surfacés mélaminés pour usages intérieurs - Méthodes d'essais

Holzwerkstoffe - Melaminbeschichtete Platten zur Verwendung im Innenbereich - Prüfverfahren

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 14323:2017) has been prepared by Technical Committee CEN/TC 112 “Wood-based panels”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document supersedes EN 14323:2004.

Compared to EN 14323:2004 the following modifications have been made:

a) reference to new EN 438-2:2016;

b) change for light source in 5.4.2 and 5.6.3;

c) to principle of resistance to scratching in 5.5.1;

d) deletion of wear point for resistance to abrasion in 5.9;

e) deletion of resistance to cigarette burn in 5.10.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies test methods for the determination of characteristics of melamine faced boards (MFB) as defined in EN 14322.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 324-1, *Wood-based panels — Determination of dimensions of boards — Part 1: Determination of thickness, width and length*

EN 438-2:2016, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (usually called laminates) — Part 2: Determination of properties*

EN ISO 2813, *Paints and varnishes — Determination of gloss value at 20°, 60° and 85° (ISO 2813)*

EN ISO 3668, *Paints and varnishes — Visual comparison of the colour of paints (ISO 3668)*

EN ISO 4892-2:2013, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps (ISO 4892-2:2013)*

ISO 9352, *Plastics — Determination of resistance to wear by abrasive wheels*

3 Test pieces

The test pieces for the following tests shall be taken at least 150 mm from the edge of the product. When needed, the longitudinal or transverse direction of the decorative surface shall be specified by the manufacturer for the tests on the products.

4 Conditioning of test pieces

Unless specified otherwise for the individual tests, the test pieces shall be tested in the received state.

In cases of dispute or for type approval, the test pieces shall be conditioned in an atmosphere of (23 ± 2) °C and (50 ± 5) % relative humidity to constant mass prior to testing.

5 Test methods

5.1 Dimensions (thickness, length and width)

These properties shall be determined in accordance with EN 324-1.

5.2 Flatness

5.2.1 Principle

Flatness is determined by measuring the maximal deviation of the board surface from a metal straight edge placed at two selected positions parallel to the long and short edges of the board or panel.

5.2.2 Apparatus

Straight edge, of (1 000 ± 1) mm length, with dial indicator gauge (comparator) graduated to permit a reading accuracy of 0,1 mm.

5.2.3 Test pieces

The test piece shall be the complete board under test, as received, stored in the conditions recommended by the manufacturer.

5.2.4 Procedure

Place the board in a vertical position free from restraint with one long edge resting on an essentially horizontal floor. Place the flatness gauge on the concave surface at various positions. At each position, measure the greatest distance between board surface and the flatness gauge with an accuracy of 0,1 mm.

5.2.5 Expression of results

The result of the test is the highest recorded reading on the dial gauge in millimetres to the nearest 0,1 mm.

5.3 Edge damage

5.3.1 Principle

Edge damage is determined by placing a graduated mask or tape measure on the board or panel under test and measuring the size of chips of paper removed from the edges.

5.3.2 Apparatus

A metal tape measure or mask graduated in divisions of 1 mm.

5.3.3 Test pieces

The test piece is the board or panel as received.

5.3.4 Procedure

The test piece is laid level on a protective surface. Loose surface contamination is to be removed using a soft brush. Using the metal tape measure or the mask the size of the chip is measured at right angles to the board edge, across the chip towards the centre of the board.

5.3.5 Expression of results

Record the dimensions of the largest chip of paper removed to the nearest millimetre (mm).

5.4 Surface defects

5.4.1 Principle

Inspection of boards for surface appearance under standardized conditions of lighting and viewing.

Surface defects are larger than 0,8 mm^2 and those that can be identified when the surface texture is viewed from a distance of 0,7 m and at an angle about of 45°.

5.4.2 Apparatus

The light source shall provide a diffused illumination of (1 200 ± 400) lx over the whole area. This may either be diffused daylight or be diffused artificial light. The daylight shall be unaffected by surrounding trees, etc. When artificial daylight is used, it shall have a correlated colour temperature of (5 000 to 6 500) K and a *Ra* greater than 92, by using a colour matching booth in accordance with EN ISO 3668.

A convenient distance of the lights from the inspection table is approximately 1,5 m.

5.4.3 Test pieces

The test piece shall be the board under test, as received.

5.4.4 Procedure

Place the board, decorative face uppermost, on the inspection table and wipe it free of any loose contamination, if necessary, with a soft cloth and any suitable cleaning agent if necessary. Inspect it from the distance required (specified in 5.4.1) for defects such as smudges, smears, finger-prints, scratches, foreign particles, damage or any other form of blemish evident within the decorative surface.

In case of cut to size panels the inspection shall be performed on the edges too.

The evaluation of the total area of spot-type defects in square millimetres and of the total length of hair-like defects in millimetres may be carried out with the help of the Tappi Size Estimation Chart[1)] or with an equivalent system. In case of dispute the inspection shall be carried out by three observers using the Tappi Chart or an equivalent system.

The inspector shall have normal vision, corrected if necessary. No magnifying glass shall be used in viewing the sheet. In cases of doubt or dispute, three observers are required for the visual assessment. All observers shall have good colour vision. In case of three observers, the reported rating for the test surface shall be the average to the nearest nominal value.

5.4.5 Expression of results

Record all defects identifying type, number and size of defects and sum up surfaces and length.

The admissible size of defects is based on a maximum contamination area equivalent to a unit of defects and is proportional to the standard delivery size of the manufacturer. The total admissible area of contamination may be concentrated in one spot or dispersed over an amount of smaller defects.

In case of pre-cut panels the cumulative defect is referred to the standard delivery sizes of the manufacturers or amount of delivery.

EXAMPLE Permitted unit of defect (see EN 14322) in this sample is 2 mm^2/m^2
Standard delivery size of the manufacturer: 5 000 mm × 2 000 mm

Points:

The permissible total error (TE) is calculated as follows:

TE = Board length × Board width × Permitted unit of defect = 5 000 mm × 2 000 mm × 2 mm^2/m^2 = 20 mm^2

The following errors are therefore permitted:

1 × 20mm^2defect,or

2 × 10mm^2defect,or

3 × 6,6 mm^2 defect etc.

Length:

The permissible total error (TE) is calculated as follows:

TE = Board length × Board width × Permitted unit of defect = 5000 mm × 2000 mm × 20 mm/m^2 = 200 mm

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1) "Tappi Size Estimation Chart" is the trade name of a product supplied by TAPPI, Technology Park, P.O. Box 105113, Atlanta, GA 30348-5113, USA, tel. +1 770 446 1400, fax +1 770 446 6947. The article reference is: TAPPI - Dirt size estimation chart. "Tappi size estimation chart" is an example of a suitable product available commercially. This information is given for the convenience of users of this European Standard and does not constitute an endorsement by CEN-CENELEC of this product.